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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/526,117	03/15/2000	Christian Tschudin	DT-3360	9943

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EXAMINER

EMDADI, KAMRAN

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/526,117

Applicant(s)

TSCHUDIN, CHRISTIAN

Examiner

Kamran Emdadi

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/15/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-17 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 11 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

- Claim 11 compares a “data structure” to a “table structure” where the “table structure” is not taught by the specification or the previous claim language and is unclear how the comparison would result without an enabling description of “table structure.”

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6-8, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 6 uses the term “extension” in an indefinite manner of understanding as regarded by the examiner, the following quote from the specification is the only

instance of the term “extension” used in the specification outside of the claim language, the resulting analysis made by the examiner can not conclude a definite reasoning of what the claim language is attempting to claim by using the term “extension.”

“subroutine or any other software and/or hardware based device serving as an extension of said operation code or program. Further, there may be route table entries that, depending on the selector values and possibly also on the packet data of incoming tokens, can implement changes to these extensions.”

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).
7. Claims 1, 2, 5, 10, and 13-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Perlman et al. (US Patent No. 6526055).

- Regarding claims 1 and 16, Perlman teaches: a router 108 with a software implementation that includes: a processor 202, a memory 204, a router database 215 (routing table), that include prefixes for matching to the individual contents of the packets (Cols 5 and 6, lines 61-67 and lines 5-13), with a destination address scheme comparison used by the prefix matching process of comparing packet prefix (destination address) to table index (destination address) for performing the operation of forwarding the packet when a match is maintained (Col 5, lines 50-60).
- Regarding claims 2, Perlman teaches: an output index field where the indexes are padded with their destination ports for forwarding of the packets (Col 7, lines 15-30) and duplicate prefixes are removed (Col 8, lines 37-45).
- Regarding claim 5, Perlman teaches: a program used to match prefix values (Cols 17-18, lines 60-67 and 1-20).
- Regarding claim 10, Perlman teaches: a default processing routine of discarding a non-matching prefix for a related packet (Col 8, lines 35-42).
- Regarding claim 13, Perlman teaches: 406 and 408 steps for comparing and sorting for a table entry to be led to more than one operation (Col 7, lines 55-65).
- Regarding claim 14, Perlman teaches: a non-deterministic approach carried out by the machine of the current invention in correlation to the definition of non-deterministic found in the specification of this invention, where (Col 7, lines 15-25) describes the routing "machine" process.

- Regarding claim 15, Perlman teaches: removing the prefix of the packet where the prefix is shown to be binary data added to existing binary data of the original packet (Col 8, lines 35-40).
- Regarding claim 17, Perlman teaches: a processor 202 for implementing the comparison process (Figure 2).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman et al. (US Patent No. 6526055) in view of Ayandeh (US Patent No. 6069895).

- Regarding claims 4 and 9, Perlman teaches: all of the above embodiments and routing table system for processing data packets and for removing a prefix to a packet but does not teach the use of a control unit for processing, or a method for the discarding of the entire data packet as a result of no matching data in the routing table. Ayandeh teaches: a route server with routing tables 24 (Figure 1), a control unit connected to the routing tables of central controller 46 (Figure 2) for a higher degree of network performance, and a packet discard method for

discarding packet to prevent infinite looping in the network when the packet is unable to find its destination (Col 7, lines 43-47). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the use of a control unit for efficiency purpose and the discarding of a lost packet for preventing efficiency loss in a packet routing network system.

Allowable Subject Matter

10. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

The cited prior art taken individually or in combination fails to teach of a method for temporarily removing a packet with an added prefix for routing table comparisons (token) that is a part of a multi-set of tokens where the token is removed for some time and later re-added to the set of tokens current in the output index field of the routing tables entries.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

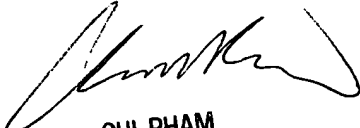
- Wicklund (US Patent No. 6034958) ATM lookup function.
- Aimoto (US Patent No. 6570876) Switching variable length packets.
- Romanov (US Patent No. 6434144) Table lookup system.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamran Emdadi whose telephone number is (703) 305-4899. The examiner can normally be reached between the hours of 8am and 5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached at (703) 305-4378. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314 for regular communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Kamran Emdadi

07/08/2003


CHI PHAM
SUPERVISORY PATENT EXAMINER
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